

Date: Monday, 22/09/2008 2:01:00 PM
User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : BRACKET ASSEMBLY
Job Number : 42193 -2
Estimate Number : 10281
P.O. Number :
This Issue : 22/09/2008 S.O. No. :
Prsht Rev. : NC
First Issue : / / Type : MACHINED PARTS
Previous Run : 39924
Written By :
Checked & Approved By :
Comment : Est Rev: Pick: A 04.02.18 New issue: KJ/DS
Est Rev: B Changed Mat Size 08-06-26 JLM Verified By: EC

Part Number : D3183043
Drawing Number : D3183 REV C1
Project Number : N/A
Drawing Revision : C1
Material :
Due Date : 25/10/2008 Qty: 25 Um: Each

split 15

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 M174B1500X02250 17-4 SS Bar 1.50 X2.250



Comment: Qty.: 0.4812 f(s)/Unit Total: 12.0304 f(s)
Material: 17-4 SS Bar per AMS 5604/5643
(M17-4-B1.500x02.25)
Identify for D3183-043
Batch: *m108309 x 25*

2.0 BAND SAW BAND SAW



Comment: BAND SAW
Cut blanks: (1.500" x 2.250") 5.500" long

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-3 as per Folio FA322 and Dwg D3183
Identify as D3183-3

2-Deburr

3-Scribe batch number

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: D3183-043 PAR #: N/A Fault Category: Prod/Machined Parts NCR: Yes No DQA: D Date: 09/01/05
 Resolution: SCRAP Disposition: SCRAP QA: N/C Closed: D Date: 09/01/05

NCR: <u>4293</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>08/12/17</u>	<u>3.0</u>	<u>Tap broke in Hole</u> <u>Scraping qty 1 part.</u> <u>R.C: Process (shank too</u> <u>thin above the tap) & tool used</u>	<u>[Signature]</u>	<u>Scrap; replace qty 1</u> <u>Review relief flange</u> <u>Belt; on tap. They only come</u> <u>one size.</u>	<u>mmz</u> <u>08-12-17</u> <u>N/A</u>	<u>[Signature]</u> <u>08-12-17</u>	<u>[Signature]</u>	<u>[Signature]</u> <u>08-12-17</u>

NOTE: Date & initial all entries

Date: Monday, 22/09/2008 2:01:00 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 42193

Part Number: D3183043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC5

SECOND CHECK



Comment: SECOND CHECK

Inspect level 8

J.L 08/12/23

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 50.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3121-21

Bolt *B43536*

ef 08/12/29

7.0

D3183045

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 50.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3183-045 Bearing Ass

B42179 200

B43538 100

ef 08/12/29

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1
Assemble D3183-043 as per Dwg D3183.

ef 08/12/29 15

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08.12.29

15

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

ST 233 A

SS 08/12/30 15

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

15

209/01/05

Job Completion

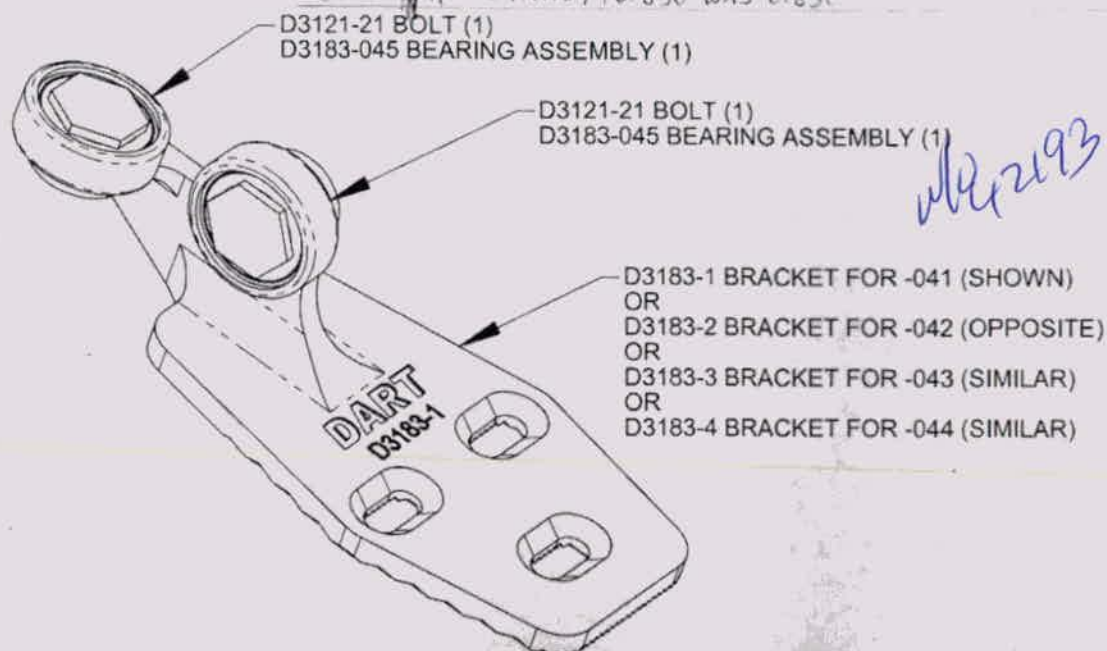


MF 08-12-31

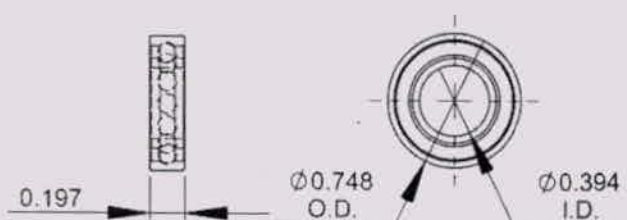


DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY		SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	04.11.09	0.830 WAS 0.850	

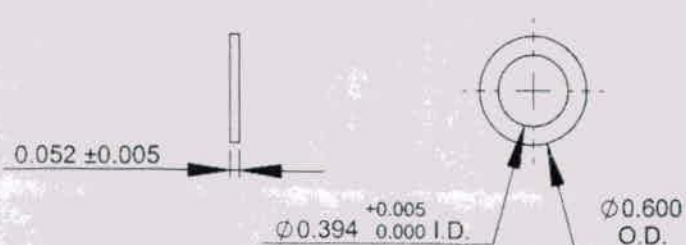
RELEASED
04 03 01

D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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QA COPY ISSUED

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 2 OF 4
DATE	TITLE		SCALE
04.02.17	BRACKET ASSEMBLY		1:2

SEE DETAIL B

4.8°

0.100

0.070 (TYP)

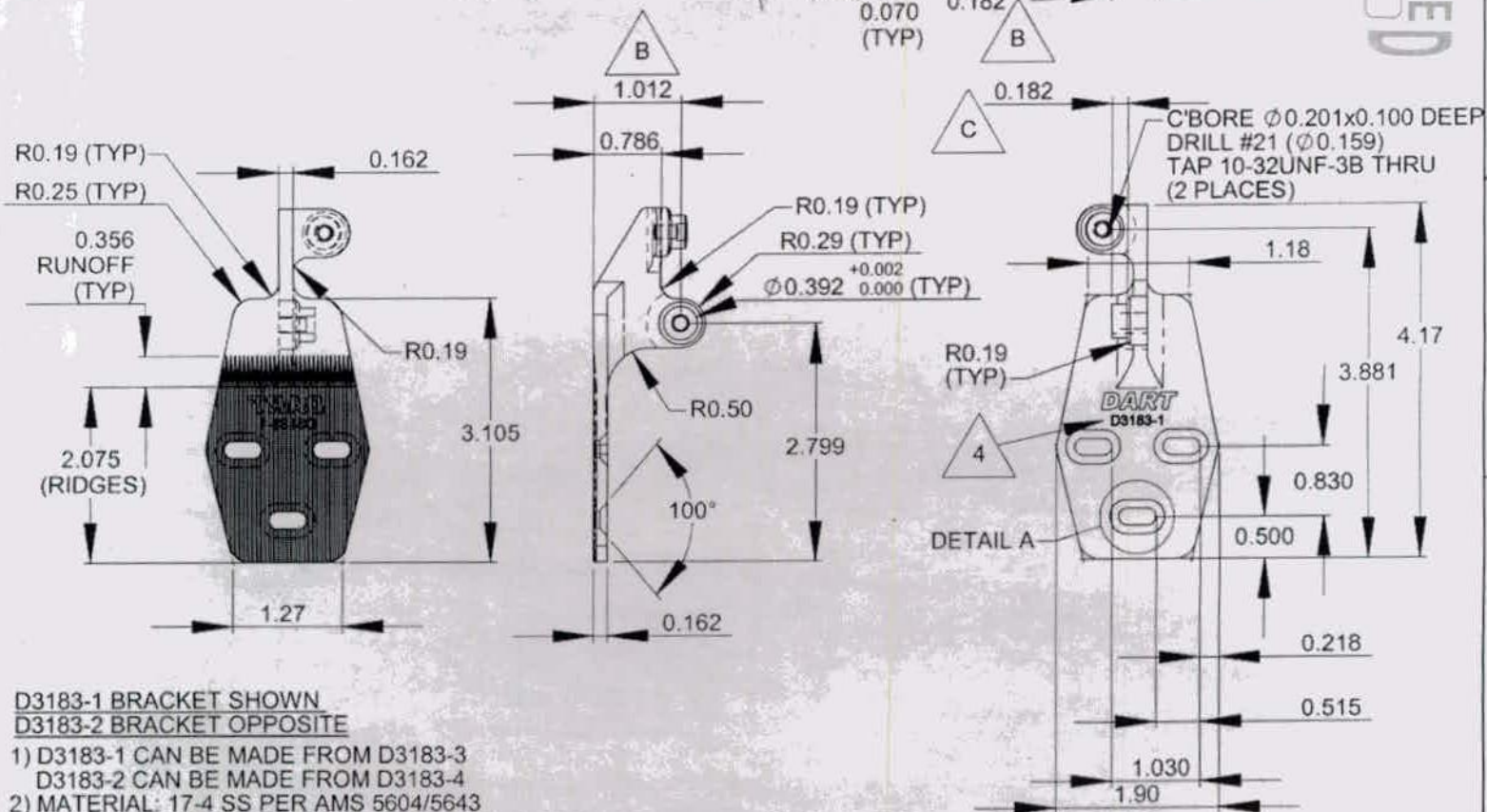
0.182

R0.19 (TYP)

R0.063

0.536

B



D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

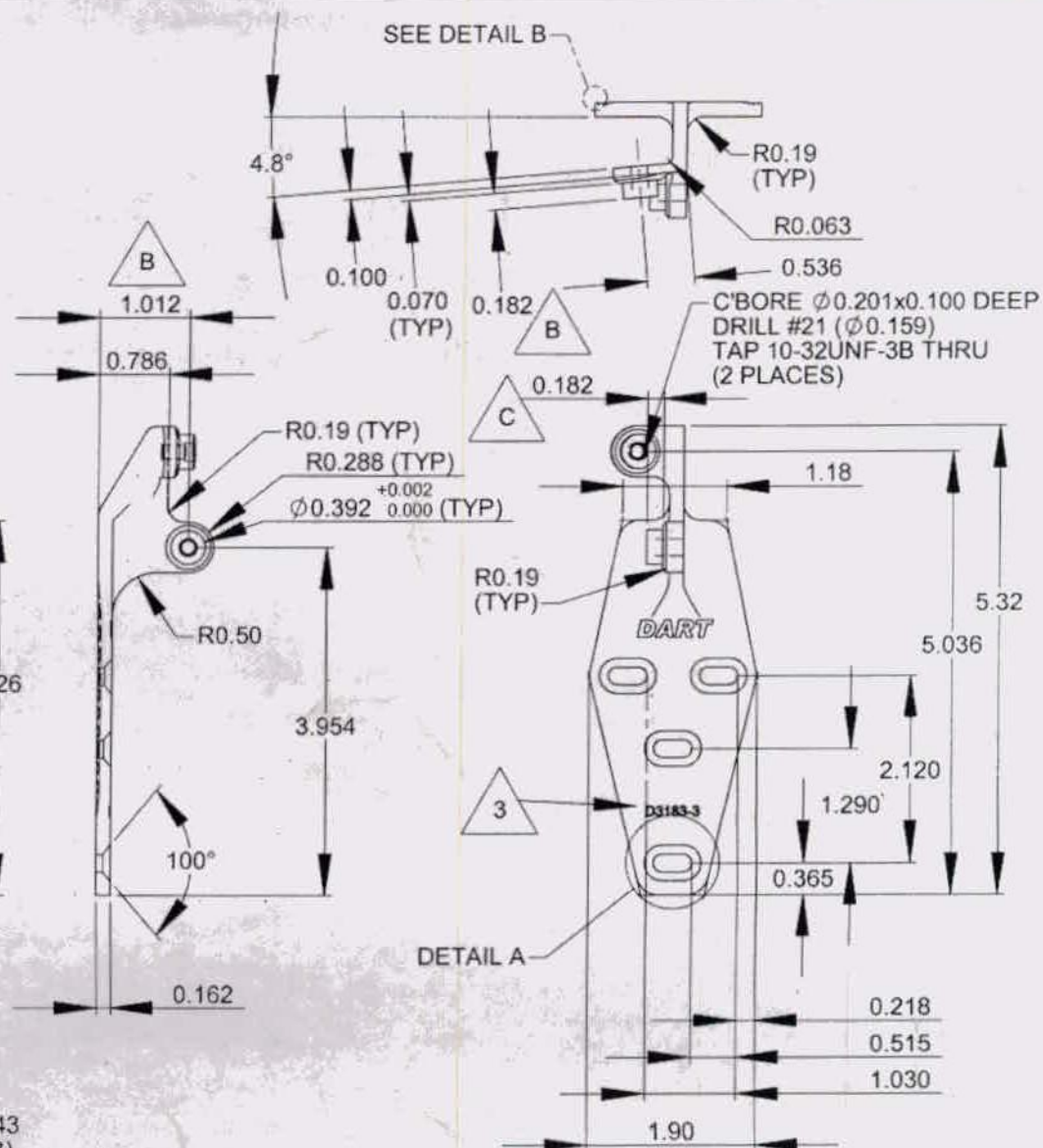
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DART

DESIGN	DRAWN BY	DART AEROSPACE LTD	
CHECKED	APPROVED	DRAWING NO.	HAWKESBURY, ONTARIO, CANADA
DATE	04.02.17	TITLE	REV. C
		BRACKET ASSEMBLY	SHEET 3 OF 4
			SCALE 1:2

**RELEASED**

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D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)

D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi

2) BREAK ALL SHARP EDGES 0.005 TO 0.015

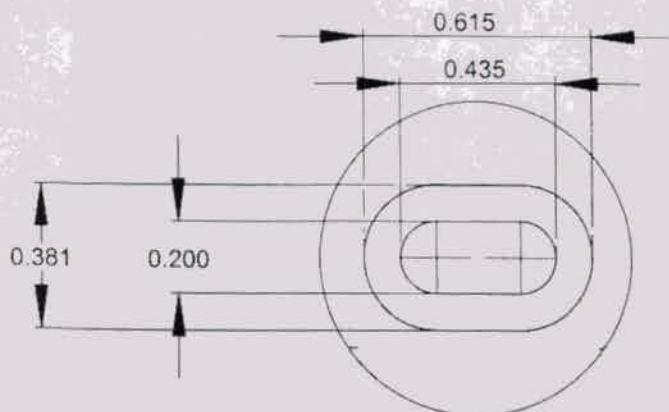
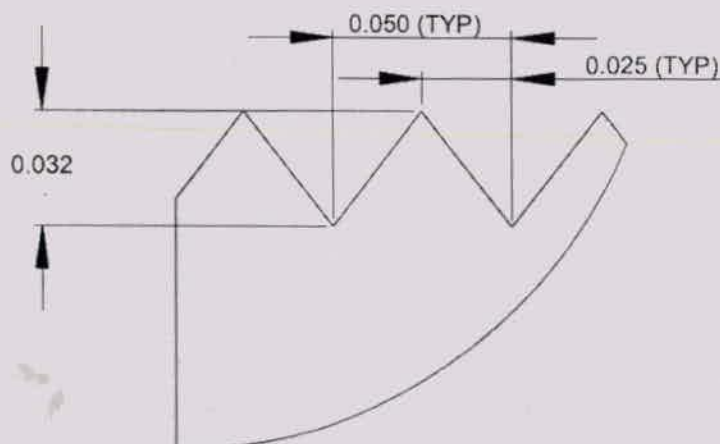
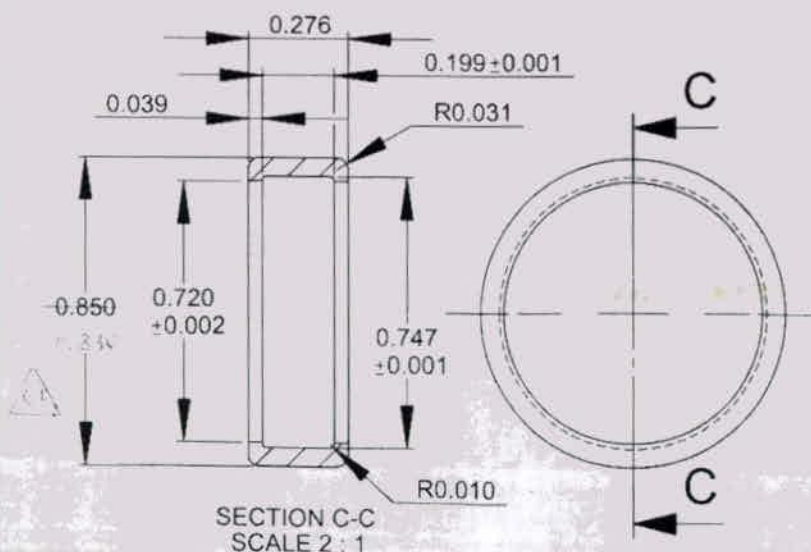
3) ENGRAVE DART P/N & LOGO AS SHOWN

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY		SCALE 1:1

**DETAIL A (2 : 1)****RELEASED**
04 03 01**DETAIL B (20 : 1)****D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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DART AEROSPACE LTD		Work Order:	
Description: Bracket		Part Number:	D3183-3
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R.187	✓			
R0.063	+/-0.010	R.063	✓			
0.182	+/-0.010	.178	✓			
0.070	+/-0.010	.073	✓			
0.100	+/-0.010	.099	✓			
Ø0.201 x 0.100	+/-0.010	Ø.197 x .103	✓			
0.182	+/-0.010	.178	✓			
5.32	+/-0.030	5.32	✓			
5.036	+/-0.010	5.035	✓			
2.120	+/-0.010	2.120	✓			
1.290	+/-0.010	1.285	✓			
0.365	+/-0.010	.364	✓			
0.218	+/-0.010	.210	✓			
1.030	+/-0.010	1.030	✓			
1.90	+/-0.030	1.88	✓			
1.012	+/-0.010	1.016	✓			
Ø0.201 x 0.100	+/-0.010	Ø.200 x .097	✓			
0.786	+/-0.010	.786	✓			
Ø0.392	+0.002/-0.000	.393	✓			
R0.19	+/-0.030	R.187	✓			
3.954	+/-0.010	3.956	✓			
0.162	+/-0.010	.162	✓			
R0.19	+/-0.030	R.187	✓			
R0.25	+/-0.030	R.25	✓			
4.26	+/-0.030	4.26	✓			
2.080	+/-0.030	2.110	✓			
1.155	+/-0.010	1.150	✓			
0.162	+/-0.010	.166	✓			
0.36	+/-0.030	.360	✓			
0.615	+/-0.010	.615	✓			
0.435	+/-0.010	.438	✓			
0.200	+/-0.010	.205	✓			
0.381	+/-0.010	.381	✓			
0.032	+/-0.010	.031	✓			

Measured by: <i>mmr</i>	Audited by: <i>JL</i>	Prototype Approval:	N/A
Date: <i>08/12/08</i>	Date: <i>08/12/23</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	06.03.09	Dwg Rev update	KJ/JLM	
D	08.01.28	0.182 dimension removed	KJEC/DD	<i>[Signature]</i>

